

## CLAIMS

1. An anion generator, which includes casing, interior circuit, ion emitting head and a discharge resistance;

Said casing is composed of insulating case and conducting protective grille , the  
5 conducting protective grille is connected to a certain potential;

Said interior circuit is composed of power circuit and oscillation boosting circuit, the power circuit provides operating power of the oscillation boosting circuit; the oscillation boosting circuit is composed of oscillation circuit, boosting circuit and multilevel dual voltage circuit, the function of oscillation boosting circuit is to  
10 generate high-tension used to ionize air though an ion emitting head;

Said ion emitting head is a discharge probe or discharge brush; the ion emitting head is connected with the high-tension output terminal of the multilevel dual voltage circuit in the oscillation boosting circuit;

a discharge resistance is connected between said conducting protective grille and  
15 the interior circuit.

2. An anion generator as in claim 1, said conducting protective grille may be manufactured as a separate element, or be done integrally with other portion of the casing.

3. An anion generator as in claim 2, said conduction protective grille can be  
20 made of conductive metallic materials or semi-conducting materials, or else be made of other non-metallic materials treated by special process to have certain conductivity.

4. An anion generator as in claim 2 or 3, said boosting circuit is composed of a sheet piezoelectric ceramic transformer.

5. An anion generator as in claim 4, said power circuit includes AC power supply  
25 circuit and DC power supply circuit, between which there is a change-over switch, which can be switched to supply power for said oscillation boosting circuit.

6. An anion generator as in claim 5, said AC power supply circuit is composed of reduce-limiting current circuit , diode rectifier bridges and filter capacitor.

7. An anion generator as in claim 6, said oscillation circuit is mainly composed  
30 of resistances, composite triodes and inductors;

as the loop capacitance of the oscillation circuit, the input capacitance of the sheet piezoelectric ceramic transformer of said boosting circuit is connected between the base electrode and collecting electrode of composite triode, so that the oscillation circuit with sheet piezoelectric ceramic transformer can form self-oscillation.

5       8. An anion generator as in claim 7, said multilevel dual voltage circuit is composed of diode D7~D14 and capacity C7~C14.

9. An anion generator as in claim 8, through a protective resistance, said ion emitting head is connected to the high-tension output terminal of multilevel dual voltage circuit in said oscillation boosting circuit.